

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: **Q80670**

Akiko MATSUMURA, et al.

Appln. No.: Unknown

Confirmation No.: Not yet assigned

Group Art Unit: Not yet assigned

Filed: **March 25, 2004**

Examiner: Not yet assigned

For: **ADHESIVE FILM FOR UNDERFILL AND SEMICONDUCTOR DEVICE USING
THE SAME**

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents, other than any U.S. patents and patent publications, is submitted herewith.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant submits the following explanations: **Though polycarbodiimide resins are thermosetting resins having excellent heat resistance, they are slightly soluble in various solvents and have low fluidity when melted, so that their mold processing becomes difficult in their practical use. With the aim of improving mold processing ability of such a polycarbodiimide, JP-A-51-61599, JP-A-61-246245, JP-A-4-261428 and the like disclose preparation of a powdery polycarbodiimide using 4,4'-diphenylmethane diisocyanate (MDI hereinafter) and a monoisocyanate. Though such a polycarbodiimide can be molded into a sheet shape by hot pressing, its workability cannot be said high and the moldings are hard and poor in flexibility.**

Also, JP-A-2-292316 and JP-A-5-310877 describe a method for producing a polycarbodiimide solution using a specified solvent in carrying out polymerization from tolylene diisocyanate (TDI hereinafter). Though there are descriptions therein stating that the moldability is improved, flexibility of the hardened products is lower than that of the polycarbodiimide obtained from 4,4'-diphenylmethane diisocyanate.

In addition, JP-A-11-322888 and US Patent 5,357,021 disclose that flexibility of a polycarbodiimide is improved by introducing a long chain polyether or a long chain polyester into its molecule through urethane bond, urea bond or the like. However, heat resistance of the polycarbodiimide is sharply reduced by such a modification.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

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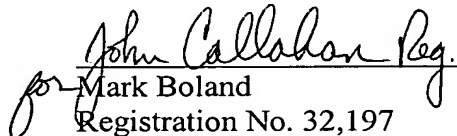
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Date: March 25, 2004

 Reg. No. 32,607
for Mark Boland
Registration No. 32,197

Substitute for Form 1449 A & B/PTO <u>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</u> <i>(use as many sheets as necessary)</i>				<i>Complete if Known</i>	
				Application Number	Unknown
				Confirmation Number	Not yet assigned
				Filing Date	March 25, 2004
				First Named Inventor	Akiko MATSUMURA, et al.
				Art Unit	Not yet assigned
				Examiner Name	Not yet assigned
Sheet	1	of	1	Attorney Docket Number	Q80670

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ² (if known)		
		US 5,357,021	A	10/18/1994	Anthony J. TYE, et al.
		US			
		US			
		US			
		US			
		US			
		US			
		US			

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		JP	51-61599		05/28/1796		
		JP	61-246245	A	11/01/1986		
		JP	4-261428	A	09/17/1992		
		JP	2-292316	A	12/03/1990		
		JP	5-310877	A	11/22/1993		
		JP	11-322888	A	11/26/1999		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁶

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or follow the hyperlink from the title of the document to the intranet. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to indicate here if English language Translation is attached.